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TAIL GROUP

The tail section consists of the horizontal stabilizer, the vertical stabilizer with dorsal fin, the rudder with tabs, and the elevators with tabs. The material used in the tail section is predominantly 75ST aluminum. The ribs and skin are formed from sheet stock and spar caps are extruded. At points of wear, such as hinge points, steel bearings are used.

The horizontal stabilizer is constructed as a one-piece unit. Provisions are made to hoist each component separately or the complete empennage as a unit. Accessibility is provided for the servicing of all mechanical controls. The mechanical controls for the elevators, rudder, and all tabs are sealed to minimize the entry of water and the possibility of freezing.

BODY GROUP

The fuselage is of all-metal semi-monocoque construction, with a modified figure-eight cross-section.

For convenience of description the fuselage is divided into three sections: the nose section, extending from Station 83 to Station 550 for the upper lobe and from Station 83 to Station 370 for the lower lobe; the center section, extending from Station 550 to just aft of Station 1810 for the upper lobe and from Station 370 to just aft of Station 1810 for the lower lobe; and the aft section extending from just aft of Station 1810 to Station 2225.

Fuselage Nose Section

The fuselage nose section consists of that portion forward of the main cargo compartment (Station 370) for the lower lobe and forward of the pressure dome (Station 550) for the upper lobe. The construction of this section, excluding the nose cap forward of Station 145, is semi-monocoque with 75S rolled hat section longerons. The upper lobe has stretch formed 75S extruded 2 1/2 inch Z section frames while the lower lobe utilizes built up frames 10 inches deep with lightened web and stretch formed cap angles.

The lower lobe includes the nose gear and nose wheel well and houses various equipment installations. The wheel well beams extend forward from a bulkhead at Station 370 past the heavy frames beam at Station 285, the aft end of the gear well, to the forward end of the well at Station 154.5. Longitudinal and lateral restraint is provided by the floor structure between Station 285 and 370 rather than the outer shell. This permits the necessary extensive antenna installations without a serious weight penalty.

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